

L Number	Hits	Search Text	DB	Time stamp
1	226	(705/29).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/11 14:56
2	0	((705/29).CCLS.) and coal	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/11 14:56
3	1	((705/29).CCLS.) and crude	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/11 14:57
4	4	((705/29).CCLS.) and electricity	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/11 14:58
5	0	((705/29).CCLS.) and electrical adj components	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/11 15:57
6	5646	703/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/11 16:00
7	17	703/\$.ccls. and coal	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/11 16:00
8	10	703/\$.ccls. and coal	USPAT; EPO; JPO; DERWENT USPAT;	2003/06/11 16:00
-	2039	(705/26).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/02/07 10:51
-	63	power adj plant and electric same generation and blend	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/10 17:04
-	63	power adj plant and electric same generation and blend	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/06/10 17:05
-	6	(power adj plant and electric same generation and blend) and purchase	USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT;	2003/06/11 10:10
-	234	engineering and coal same blends	USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT;	2003/06/11 10:13
-	159	(engineering and coal same blends) and order	USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT;	2003/06/11 10:13
-	5	((engineering and coal same blends) and order) and purchase	USPAT; US-PGPUB; EPO; JPO; DERWENT USPAT	2003/06/11 10:20
-	1	"3124086".PN.	USPAT	2003/06/11 10:19

-	1	"3229651".PN.	USPAT	2003/06/11 10:19
-	1	"3260227".PN.	USPAT	2003/06/11 10:19
-	417	crude adj oil same properties and economics	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/11 10:21
-	21	(crude adj oil same properties and economics) and production adj costs	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/11 10:43
-	4	performance adj model and production adj cost	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/11 10:26
-	46	chemical adj characteristics same economic	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/11 10:54
-	37	internet and website and order same raw adj materials	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/06/11 11:05
-	911	(705/7).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2003/06/11 11:05
-	313	((705/7).CCLS.) and purchase	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 11:07
-	100	((705/7).CCLS.) and purchase	USPAT; EPO; JPO; DERWENT; IBM TDB	2003/06/11 13:37
-	2363	(705/26).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2003/06/11 13:37
-	860	(705/27).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 13:37
-	2883	((705/26).CCLS.) or ((705/27).CCLS.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 13:38
-	962	((705/26).CCLS.) or ((705/27).CCLS.)	USPAT; EPO; JPO; DERWENT	2003/06/11 13:38
-	57	((705/26).CCLS.) or ((705/27).CCLS.) and procurement	USPAT; EPO; JPO; DERWENT	2003/06/11 13:39
-	122	((705/26).CCLS.) or ((705/27).CCLS.) and commodity	USPAT; EPO; JPO; DERWENT	2003/06/11 13:39
-	20	(((705/26).CCLS.) or ((705/27).CCLS.) and procurement) and (((705/26).CCLS.) or ((705/27).CCLS.)) and commodity	USPAT; EPO; JPO; DERWENT	2003/06/11 13:43
-	12	(((705/26).CCLS.) or ((705/27).CCLS.)) and refining	USPAT; EPO; JPO; DERWENT	2003/06/11 13:47
-	194	procurement and raw adj material	USPAT; EPO; JPO; DERWENT	2003/06/11 13:48

-	73	procurement same raw adj material	USPAT; EPO; JPO; DERWENT	2003/06/11 14:09
-	14	purchase same coal and production same cost	USPAT; EPO; JPO; DERWENT	2003/06/11 14:17
-	2	("5224034").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:55
-	2	("5249120").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:30
-	4071	power same generation and coal	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:31
-	3608	power same generation and coal	USPAT; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:31
-	1	power same generation and coal same procurement	USPAT; EPO; JPO; DERWENT	2003/06/11 14:45
-	648	(110/342).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:46
-	249	(110/341).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:46
-	889	((110/342).CCLS.) or ((110/341).CCLS.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:46
-	22	((110/342).CCLS.) or ((110/341).CCLS.) and blend and cost	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:46
-	19	((110/342).CCLS.) or ((110/341).CCLS.) and blend and cost	USPAT; EPO; JPO; DERWENT; IBM TDB	2003/06/11 14:46

(45)

EIC2100 COMMERCIAL DATABASE SEARCH REQUEST

Staff Use Only

Complete 705 Template Search Requested RUSH - SPE signature required: _____Access DB# 96433Business Methods Case: 705/ 26

Write in 705 subclass(es) to search required files for 705 cases or cases cross referenced in 705.

Log Number _____

Requester's Full Name: Elaine Gort Examiner #: 77459 Date: 6/11/03Art Unit: 3627 Phone Number 703/308-6391 Serial Number: 91839,245Bldg & Room #: PK5 7B21 Results Format Preferred: PAPER**If more than one search is submitted, please prioritize searches in order of need.****Provide the PALM Bib page or the following:**Title of Invention: see attached bib sheetInventors (provide full names): see attached bib sheetEarliest Priority Filing Date: 4/24/00**Requested attachments:**

- If possible, provide the cover sheet, the IDS, examples, or relevant citations, authors, etc, if known.
- Please attach copies of the parts of this case that help explain or are most pertinent to this search. Examples are: abstract, background, summary, claim(s) [not all of the claims].

See particularly claims 1 + 13

The claimed or apparent novelty of the invention is:

06-12-03A09:32 RCV'D

See attached computer write up**This search should focus on:**

(Also include keywords or synonyms)

See attached computer write upSpecial Instructions or Other CommentsThanks!Elaine Gort

12/5/5 (Item 5 from file: 35)
DIALOG(R) File 35:Dissertation Abs Online
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01601938 ORDER NO: AAD98-04995
THE EFFECT OF UNITED STATES DAIRY DEREGULATION ON FARM LEVEL MARKETS: A LABORATORY EXPERIMENT

Author: DOYON, MAURICE ALBERT

Degree: PH.D.

Year: 1997

Corporate Source/Institution: CORNELL UNIVERSITY (0058)

Source: VOLUME 58/08-A OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3238. 100 PAGES

Current dairy regulations in the U.S. are the result of over 80 years of regulatory activities. Through the 1920s and 1930s the U.S. government passed various acts designed to increase the share of market surplus captured by sellers, which at the time was judged insufficient. Lately, budget constraints and commitments to freer trade agreement have let the government and some dairy sector leaders contemplate different levels of dairy deregulation. The elimination of the Federal Milk Marketing Orders (FMMOs), a cornerstone of U.S. dairy regulation, has emerged as a possibility.

The thought of eliminating the FMMOs was particularly disturbing to milk producers because of uncertainty regarding what might happen to the farm price, the volume of raw milk supplied, market stability and price efficiency, and to the distribution of market surplus between dairy farmers and dairy processing plants.

These particular questions have not been extensively studied before due to data availability problems. Data from the era prior to the establishment of FMMOs would be difficult to obtain, and probably not meaningful because FMMOs have been around since the late-1930s.

Experimental economics is used to **simulate** U.S. dairy market conditions and the effect of the elimination of FMMOs. The experimental task is a simple 2 X 2 matrix laboratory game. The treatments are oligopsony and regulation. Perishability is represented by an advance **production** decision with no carry-over and is kept constant across the experiments. Experimental sessions comprised 12 periods and a practice period. **Sellers** made **production** decisions and received a pool **price**, while **buyers** made a **price** (bid) and quantity decision. The allocation of units **produced** is made by the monitor on a highest bid basis. The game is **computer** assisted.

Experimental results indicate that, in the absence of regulation, **buyers** are successful in reducing market **price** below the perfectly competitive **price** and in capturing a larger share of market surplus than a competitive solution predicts. Regulation reduced the market power of buyers and the **price** fluctuation of raw milk, in an oligopsonistic market, and had no significant impact on the overall **price** efficiency of the market.

12/5/24 (Item 2 from file: 2)
DIALOG(R) File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6704143 INSPEC Abstract Number: C2000-10-7180-008
Title: An agent based model of supply chains

Author(s): Hicks, C.; Hines, S.A.; Harvey, D.; McLeay, F.J.; Christensen, K.

Conference Title: Simulation: Past, Present and Future. 12th European Simulation Multiconference 1998. ESM'98. As Part of the 50th Anniversary Celebrations of the University of Manchester the Home of Computing p. 609-13

Editor(s): Zobel, R.; Moeller, D.

Publication Date: 1998 Country of Publication: USA 894 pp.

ISBN: 1 56555 148 6 Material Identity Number: XX-2000-01990

Abstract: Describes a generic **simulation model** that is capable of representing a supply chain from raw material **producers** through to the final **consumers**, with products flowing up the chain and money flowing downwards. Each level of the chain may have many competitors that may have relationships with multiple **customers** and **suppliers**. The **model** provides a framework for defining the behaviour of **producers** in terms of the product range that they supply, their **pricing** strategy and **production** volumes. **Customer** purchasing decisions are represented by rules that determine the sources of supply and order quantities. These rules use information that may be based upon **purchasers**, **suppliers** and product attributes. The **model** represents companies and their inter-relationships as **networks** of autonomous intelligent agents. The program is implemented in Java. A case study in the meat industry is provided. (5 Refs)

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12/5/27 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

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6561766 INSPEC Abstract Number: C2000-05-7400-029

Title: **WWW-based collaborative system for integrated design and manufacturing**

Author(s): Hain-Chi Chang; Wen F. Lu; Xiaoqing Frank Liu

Journal: Concurrent Engineering: Research and Applications vol.7, no.4 p.319-34

Publication Date: Dec. 1999 Country of Publication: USA

CODEN: CRAPEM ISSN: 1063-293X

Abstract: In today's competitive business environment, product development is the result of a team effort involving a multi-disciplinary group of designers, **manufacturers**, even **supplier** and **customer** representatives. Effective collaboration among various groups is important for reducing **cost** and product development time. Hence, the aim of our study is to develop a **WWW**-based collaborative system for integrated design and **manufacturing**. The proposed system is composed of three modules-collaboration, design, and **manufacturing**. The paper focuses on its collaboration module and the design module. The collaboration module is **WWW**-based platform-independent and provides a virtual collaborative environment for a part designer to perform **online** communication with customers and manufacturers via the **Internet**. All participants in the collaborative environment can view, and manipulate the solid **model** of the design part as well as discuss their concerns online interactively. The design module utilizes the design by features approach to construct a part. Traditional design by features systems restrict the designer to a fixed set of predefined features provided by the system vendor. The proposed design module includes an extension mechanism for designers to create user-defined features and an evaluation mechanism for designers to perform

manufacturability evaluation. The design module is able to generate a very complicated user-defined feature and to provide feedback concerning potential manufacturing problems in the early design stage. Both proposed modules have been implemented on a Sun workstation using the ACIS geometric modeler, C++, and JAVA. (32 Refs)

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12/5/33 (Item 11 from file: 2)

DIALOG(R)File 2:INSPEC

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5483006 INSPEC Abstract Number: C9703-1290F-022

Title: Quantifying the relative improvements of redesign strategies in a PC supply chain

Author(s): Berry, D.; Naim, M.M.

Journal: International Journal of Production Economics Conference Title:
Int. J. Prod. Econ. (Netherlands) vol.46-47 p.181-96

Publication Date: Dec. 1996 Country of Publication: Netherlands

CODEN: IJPEE6 ISSN: 0925-5273

Abstract: The paper outlines the development of **simulation models** that describe the dynamic implications of various supply chain redesign strategies adopted by a major European **manufacturer** of personal computers (PCs). The strategies adopted in the real world supply chain, and replicated in the **simulation models**, are the introduction of the just-in-time philosophy in **manufacturing** plants, the development of a global materials planning system that attains visibility of total supply chain stock, a strategic **supplier** sourcing policy and the by-passing of the distribution **network** so as to directly interface with the **customer**.

Simulation results suggest that dynamic performance improvements (which have an impact on **customer** service level achievement, stock holding requirements and **production on- costs**) were achieved by each consecutive redesign strategy. The paper concludes that the **simulations** are useful in educating and informing supply chain designers in other supply chains of the relative dynamic benefits of different supply chain redesign strategies. (18 Refs)

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12/5/35 (Item 13 from file: 2)

DIALOG(R)File 2:INSPEC

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5235912 INSPEC Abstract Number: B9605-0140-027

Title: High-mix/low-volume production: An EMS perspective [Electronic manufacturing services]

Author(s): Bieck, L.F., Jr.

Journal: Circuits Assembly vol.7, no.1 p.32-4

Publication Date: Jan. 1996 Country of Publication: USA

CODEN: CIATE5 ISSN: 1054-0407

Abstract: As the benefits of **electronic** manufacturing services (EMS) have become better understood and accepted, more OEMs in mainstream industries are looking for opportunities to join the outsourcing revolution. Typically, these OEMs do not compete in mass markets, such as PCs and consumer **electronics**, where high volume **manufacturing**, short product life cycles and fast time-to-market are absolutely crucial. Rather, they are characterized by a high mix of relatively low-volume products with

longer life cycles (up to 10 years or more). They also tend to have a large number of different product **models** in current **production**, in addition to handling many **customers** and individual transactions. Under these conditions, the management of inventory, **production**, scheduling and quality control can be both complex and difficult. Furthermore, due to low volumes, these OEMs often lack the purchasing clout needed to pressure **suppliers** for improved **costs** and component availability. They therefore tend to require substantial investments in inventory, procurement and materials management personnel. As a consequence, high-mix/low-volume OEMs are faced with a two-fold dilemma. The potential for higher levels of efficiency from outsourcing provides a great incentive to enter into partnerships with EMS providers, but because they lack the economies-of-scale of high-volume OEMs, it can be difficult for them to attract EMS providers who can effectively manage their outsourcing needs while also reducing total acquisition cost. (1 Refs)

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12/5/53 (Item 1 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
(c) 2003 The HW Wilson Co. All rts. reserv.

1402692 H.W. WILSON RECORD NUMBER: BAST96042840
Internet expands global competition
McKenna, James T;
Aviation Week & Space Technology v. 145 (July 8 '96) p. 57

ABSTRACT: Analysts and industry leaders believe that increasing use of **Internet** technologies for design development, parts selection, and **customer** support promises to heighten competition among aerospace contractors and put that competition on a truly global scale. **Manufacturers** are accessing the **Internet** to communicate with employees around the world, review available technical information for development projects, and distribute time-critical data. **Electronic** links mean that **suppliers** can eventually post specifications and **models** of their products to the **Internet** for retrieval and evaluation by potential **customers** across the globe. Moreover, the **Internet**'s dependence on a distributed global **network** of **computers** using existing phone lines for communications minimizes the **expense** to a company in creating its own **Internet**-like internal **network**, or "intranet".

12/5/61 (Item 6 from file: 256)
DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.
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TITLE: Linking The Supply Chain With The Cash Register
AUTHOR: Frook, John Evan
SOURCE: InternetWeek, v709 pS7(3) Apr 6, 1998
ISSN: 0746-8121

Web-based supply chains give businesses a way to minimize the **cost** of selling, by creating an automated link between **customer** and **supplier**. Systems can also be created to forecast **production** needs based on actual market conditions. Some corporations are moving towards handling planning, **production**, and scheduling completely on an intranet. This **model**, known as the **Web** value chain, integrates systems that link both inbound and

outbound logistics, operations, marketing, sales, and service to an automated system for order entry, fulfillment, and **supplier** feedback. This type of supply chain incorporates real-time feedback and has rapidly become a tool that gives a competitive advantage to its user. With a **Web** value chain, manufacturing and selling data can interact in real time, and suppliers no longer have to rely on incorrect and out-of-date forecasting data. The **Web** value chain shifts the focus from back-office systems to a broader space beyond the corporate boundary. It often requires changes in business processes that control the supply chain. This new model encompasses both the demand chain and supply chain, which when joined together, encompasses all aspects of a business.

Set	Items	Description
S1	3144579	INTERNET OR ONLINE OR ON()LINE OR ELECTRONIC? OR NETWORK? - OR COMPUTER? OR WEB OR WWW
S2	340962	SELLER? ? OR VENDOR? ? OR RETAILER? ? OR WHOLESALER? ? OR - MERCHANT? ? OR TRADER? ? OR BROKER? ? OR SUPPLIER? ?
S3	502879	BUYER? ? OR PURCHASER? ? OR CONSUMER? ? OR CUSTOMER? ?
S4	2203593	COST? ? OR PRIC??? OR RATE? ? OR FEE OR FEES OR EXPENSE? ?
S5	1924519	PRODUCE? OR PRODUCTION? OR MANUFACTUR?
S6	2919481	MODEL? OR SIMULAT?
S7	392	S1 AND S2 AND S3 AND S4 AND S5 AND S6
S8	142	S1(S)S2(S)S3(S)S4(S)S5(S)S6 NOT PY>2000
S9	140	RD (unique items)
S10	71	S1(10N)S2(10N)S3(10N)S4(10N)S5(10N)S6 NOT PY>2000
S11	69	RD (unique items)
S12	62	S11 NOT PD>20000424
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	(c) 2003 Info. Today Inc.	
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File	475:Wall Street Journal Abs 1973-2003/Jun 16	
	(c) 2003 The New York Times	
File	99:Wilson Appl. Sci & Tech Abs 1983-2003/May	
	(c) 2003 The HW Wilson Co.	
File	256:SoftBase:Reviews,Companies&Prods. 82-2003/May	
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15/3,K/2 (Item 2 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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02025272 54054053

E-retail: Gold rush or fool's gold?

Rosen, Kenneth T; Howard, Amanda L

California Management Review v42n3 PP: 72-100 Spring 2000

ISSN: 0008-1256 JRNL CODE: CMR

WORD COUNT: 10088

...ABSTRACT: constraints, e-retail will continue to present a relatively minor risk to experience-oriented and **non - commodity** physical retailers..
...TEXT: com is an example of a Webbased apparel firm betting that it will.

Entertainment and **Electronics** -The e-format advantages are: the in-store entertainment and **electronics** experience is generally unpleasant; opportunities exist for entertainment system customization; entertainment and **electronics** items are fairly standardized (although, systems differ in quality, sound, speed, and other characteristics); entertainment and **electronics** products are **price** sensitive, which is particularly important in terms of potential for a **manufacturer -to- consumer online model**; and **electronics** products often require features and options research prior to purchase, a practice facilitated by the **Web**. The e-format disadvantages are: tactility and sensory interaction is particularly important for entertainment and **electronics** systems; the sector is low margin (gross margins average in the low 20% range); systems ...

... be weighty and therefore expensive to ship; immediate gratification can be important with a high- **priced** system. Buy.com, SOO.com, Cyberian Outpost, Netmarket, and Onsale are examples of **electronics** and entertainment **online retailers**. Best Buy, Circuit City, and Radio Shack became e-retail enabled during the second half...

15/3,K/14 (Item 14 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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00206073 83-17634

Request-for-Proposal: A Professional Approach to Buying a Business System

Benson, Terry

Interface Age v8n5 PP: 54-59, 146-149 May 1983

ISSN: 0147-2992 JRNL CODE: INA

...ABSTRACT: maintenance. The RFP format illustrated tries to supply as much data as possible to the **vendor** so that choosing a system will be easier for the **purchaser**. Since the **vendor** usually is not the **manufacturer**, the equipment configuration section asks for the **manufacturer** and **model** of the suggested **computer**. The initial purchase should include a hard disk system, since most businesses rapidly outgrow a...

15/3,K/27 (Item 4 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

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01143018 SUPPLIER NUMBER: 00657060

Vendors Must Deliver on Their Automation Promise.

Kerr, John

Electronic Business, v11, n22, p174

Nov. 15, 1985.

DOCUMENT TYPE: column ISSN: 0163-6197 LANGUAGE: ENGLISH

RECORD TYPE: ABSTRACT

...ABSTRACT: automation whether it means better information systems throughout an operation, or control systems, robots, and simulation software. **Vendors** must build the **customer**'s confidence in **computer**-integrated **manufacturing** (CIM) by selling their products as solutions. **Suppliers** should underwrite college curricula for advanced manufacturing engineering as well. General Motor's Manufacturing Automation...

Set	Items	Description
S1	4724990	INTERNET OR ONLINE OR ON()LINE OR ELECTRONIC? OR NETWORK? - OR COMPUTER? OR WEB OR WWW
S2	1960381	SELLER? ? OR VENDOR? ? OR RETAILER? ? OR WHOLESALER? ? OR - MERCHANT? ? OR TRADER? ? OR BROKER? ? OR SUPPLIER? ?
S3	2927763	BUYER? ? OR PURCHASER? ? OR CONSUMER? ? OR CUSTOMER? ?
S4	4778872	COST? ? OR PRIC??? OR RATE? ? OR FEE OR FEES OR EXPENSE? ?
S5	3230380	PRODUCE? OR PRODUCTION? OR MANUFACTUR?
S6	993237	MODEL? OR SIMULAT?
S7	90368	S1 AND S2 AND S3 AND S4 AND S5 AND S6
S8	826	S1(S)S2(S)S3(S)S4(S)S5(S)S6 NOT PY>2000
S9	3055	S3(5N)S5(5N)S6
S10	44	S9(5N)S2(5N)S1 NOT PY>2000
S11	41	RD (unique items)
S12	28	S11 NOT PD>20000424
S13	1	S8 AND (NON())COMMODIT? OR NONCOMMODIT?)
S14	1	S13 NOT PY>2000
S15	29	S14 OR S12
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File	15:ABI/Inform(R)	1971-2003/Jun 17 (c) 2003 ProQuest Info&Learning
File	9:Business & Industry(R)	Jul/1994-2003/Jun 17 (c) 2003 Resp. DB Svcs.
File	610:Business Wire	1999-2003/Jun 18 (c) 2003 Business Wire.
File	810:Business Wire	1986-1999/Feb 28 (c) 1999 Business Wire
File	275:Gale Group Computer DB(TM)	1983-2003/Jun 18 (c) 2003 The Gale Group
File	476:Financial Times Fulltext	1982-2003/Jun 18 (c) 2003 Financial Times Ltd
File	624:McGraw-Hill Publications	1985-2003/Jun 17 (c) 2003 McGraw-Hill Co. Inc

FT NPL
(1 of 2)

10/3, K/24 (Item 2 from file: 636)
DIALOG(R) File 636:Gale Group Newsletter DB(TM)
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03855762 Supplier Number: 48389632 (USE FORMAT 7 FOR FULLTEXT)
SOFTWARE AND INFORMATION SERVICES: American Companies in Japan:
Japan-U.S. Business Report, v1998, n342, pN/A
March 31, 1998

... Infospace's scalable, multithreaded Java server also allows firms to give secure data access to **customers** and **suppliers** via the **Internet**. Mitsui is Infospace's primary backer.

Hoping to make feasible on-line transactions for amounts...optimize their production software. Built into the products is an expert system that automates visualization, **simulation** and analysis of **manufacturing** processes. Distributor CRC RESEARCH INSTITUTE, INC. has **priced** iSIGHT from \$63,500. It is projecting first-year sales of 50 copies.

Eight months...

10/3, K/32 (Item 10 from file: 636)
DIALOG(R) File 636:Gale Group Newsletter DB(TM)
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02501415 Supplier Number: 45025470 (USE FORMAT 7 FOR FULLTEXT)
AMERICAN SOFTWARE PUSHES SUPPLY CHAIN MANAGEMENT IN ATTEMPT TO STOP ITS SLIDE FROM TOP 50 COMPANIES
Computergram International, n2512, pN/A
Sept 30, 1994

(USE FORMAT 7 FOR FULLTEXT)
TEXT:
...of textile manufacturer Milliken & Co, has created such spin-off practices as Just In Time, **Vendor** Managed Inventory, Efficient **Consumer** Response, Continuous Replenishment Programmes and **Electronic** Commerce. Up until now American Software has supplied Supply Chain Management programmes on mainframe, AS...

... and Shop Floor Control. It has also recently developed a set of applications called Flow **Manufacturing** with mixed- **model** flow line design, **rate**-based planning, and Total Quality Control capabilities to integrate Finished Goods Planning with Just-In...

13/3, K/1 (Item 1 from file: 16)
DIALOG(R) File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

07134899 Supplier Number: 60044063 (USE FORMAT 7 FOR FULLTEXT)
Power Shift.
Best's Review, v100, n9, p7
Jan, 2000
Language: English Record Type: Fulltext

(USE FORMAT 7 FOR FULLTEXT)
TEXT:

Customer Management: Deregulation and the rise of the **Internet** have passed control of the transaction from the financial-service provider to the **customer**.

Two powerful converging forces--financial-services deregulation and the **Internet**--are profoundly affecting how property/casualty insurers distribute their products. These forces will reshape insurers' traditional business **models**, particularly in the overcrowded personal-lines and small-commercial segments. **Pricing** transparency will lead to tighter margins, expose undifferentiated insurers and accelerate consolidation.

At no time in history has one delivery system--the **Internet**--been able to access so many **customers** across state and country boundaries. The financial-services industry is poised for explosive growth facilitated by **online** commerce, with nearly one-third of **Internet** users already using **electronic** checking and nearly 60% of **Internet** households using the **Web** to research stocks, bonds and mutual funds.

Over the next five years, virtually all leading...

...their branding and trust will determine their future success against nontraditional competitors such as America **Online** and Yahoo.

The **Internet** is uncoupling product **manufacturing** from distribution. Soon a **consumer** may no longer need to buy an insurance policy from an insurance company. The most popular area on America **Online** is its finance section. To date, **consumers** still are more likely to buy insurance products from financial institutions than from technology companies; but that will change as sites such as America **Online** and Yahoo increase **customer** satisfaction, confidence and trust.

In response, many insurers are creating or reinvigorating brands and logos...

...be customized, corporations and business owners will depend even more on their independent agent or **broker** for risk-management services and determining appropriate insurance coverage.

Online delivery systems are not yet suited to selling specialized products in situations where buying decisions are based on more than **price**. Commercial-lines products are generally regarded as **noncommodity** and less **price**-sensitive.

Instead of positioning their **online** efforts as building another distinct channel commercial insurers such as Reliance and Atlantic Mutual are partnering with agents on the **Web**. These insurers allow **customers** to purchase competitively **priced** commercial policies **online** using a private **network** to refer business to its partner agents. Using a virtual private **network**--known as an Intranet--all parties benefit from access to shared resources, greater efficiency and...

Set Items Description
S1 6816238 (INTERNET OR ONLINE OR ON()LINE OR ELECTRONIC? OR NETWORK?
 OR COMPUTER? OR WEB OR WWW) NOT PY>2000
S2 2314164 (SELLER? ? OR VENDOR? ? OR RETAILER? ? OR WHOLESALER? ? OR
 MERCHANT? ? OR TRADER? ? OR BROKER? ? OR SUPPLIER? ?) NOT PY>-
 2000
S3 4094573 (BUYER? ? OR PURCHASER? ? OR CONSUMER? ? OR CUSTOMER? ?) N-
 OT PY>2000
S4 6366695 (COST? ? OR PRIC??? OR RATE? ? OR FEE OR FEES OR EXPENSE? -
 ?) NOT PY>2000
S5 7248841 (PRODUCE? OR PRODUCTION? OR MANUFACTUR?) NOT PY>2000
S6 1106212 (MODEL? OR SIMULAT?) NOT PY>2000
S7 7306 S4(5N)S5(5N)S6
S8 129 S1(5N)S2(5N)S3 AND S7
S9 75 RD (unique items)
S10 60 S9 NOT PD>20000424
S11 5 S1 AND S2 AND S3 AND S4 AND S5 AND S6 AND (NONCOMMODIT? OR
 NON()COMMIDIT?)
S12 5 RD (unique items)
S13 3 S12 NOT PD>20000424

? show files

File 621:Gale Group New Prod.Annou.(R) 1985-2003/Jun 17
 (c) 2003 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2003/Jun 16
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File 613:PR Newswire 1999-2003/Jun 18
 (c) 2003 PR Newswire Association Inc
File 813:PR Newswire 1987-1999/Apr 30
 (c) 1999 PR Newswire Association Inc
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File 160:Gale Group PROMT(R) 1972-1989
 (c) 1999 The Gale Group
File 634:San Jose Mercury Jun 1985-2003/Jun 17
 (c) 2003 San Jose Mercury News

FT NPL
(2 of 2)

10/3,K/1 (Item 1 from file: 148)
DIALOG(R) File 148:Gale Group Trade & Industry DB
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12108967 SUPPLIER NUMBER: 59282628 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Market Orientation and Other Potential Influences on Performance in Small and Medium-Sized Manufacturing Firms.
Pelham, Alfred M.
Journal of Small Business Management, 38, 1, 48
Jan, 2000
ISSN: 0047-2778 LANGUAGE: English RECORD TYPE: Fulltext

TEXT:

...with measures of performance. The most influential market orientation elements are fast response to negative **customer** satisfaction information, strategies based on creating value for **customers**, immediate response to competitive challenges, and fast detection of changes in **customer** product preferences. Results also indicate the crucial role of market orientation in implementing an emphasis on a growth/differentiation strategy, compared to a low **cost** strategy. The strength of the market orientation-performance and strategy-performance relationships are stronger under...

...are firms who manage to be successful without embracing this concept by emphasizing technical or **production** capabilities. Webster's (1981) survey of CEOs of large industrial firms indicated a dominant technology culture, resulting in a predominant **production** orientation geared toward internal efficiency. With a **production** orientation, the charge to the marketing and sales functions is to push current products, often with **price** incentives, to maximize plant capacity.

Many firms rode strong product and technology focuses to high...

...product success, and profitability. Pelham's study (1997b), with a different data base of small **manufacturing** firms, **produced** similar results. This study also indicated that the **customer** satisfaction dimension of market orientation may be more important than the **customer** understanding or competitive orientation dimensions of market orientation. These results, while interesting to academics, are structured within path-analysis and structural equation **models** which makes them less understandable to small business managers.

In contrast, this study utilizes simple...

10/3,K/10 (Item 10 from file: 148)
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11179933 SUPPLIER NUMBER: 55135525 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Business-to-Business Selling on the Internet : Keys to Success, According to Sibson & Company.
PR Newswire, 0138
July 13, 1999

TEXT:

...13 /PRNewswire/ -- "Faced with an ever-growing list of questions about how to leverage the **Internet**, many managers are increasingly reluctant, or at the very least perplexed, about how to sell over the

Internet," says Tom Knight, principal at Sibson & Company, global management consulting firm. He added, "This is particularly true in commercial businesses where many managers believe that selling over the **Web** is for **consumer** products or commercial products that have become commodities."

...once knew when they shipped by the freight car.

7. How should we think about **pricing** our products? The challenge of **pricing** for e-channels is complex and ongoing. Comparison-shopping is

easier over the **Web**, particularly for **non-commodity** products. Managers must first decide whether discounts are warranted on certain products within certain segments. Then they must go to work creating a **price** monitoring and **modeling** system that frequently reviews the competitiveness of their **prices** and the profitability of products, as

well as **customers**.

8. What decision support tools and information are required to manage selling over e-channels? With the added complexities of regular **customer** re-segmentation, **pricing** modifications, and leveraging free

time created by new sales roles, a variety of information and...

10/3, K/16 (Item 16 from file: 148)

DIALOG(R) File 148:Gale Group Trade & Industry DB

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10455237 SUPPLIER NUMBER: 21120633 (USE FORMAT 7 OR 9 FOR FULL TEXT)
IT Makes Commodities Hot -- Commodities Producers Are Relying On IT To Improve Service, Develop Loyalty-And Pump Up Profits. (Industry Trend or Event)

Caldwell, Bruce; Thyfault, Mary E.

InformationWeek, n699, p48(1)

Sept 7, 1998

ISSN: 8750-6874 LANGUAGE: English RECORD TYPE: Fulltext; Abstract

ABSTRACT: **Vendors** of commodity products are turning to IT to promote **customer** loyalty and brand awareness as well as improve profits. Some companies are employing **electronic** data interchange technologies to simplify and speed up the **customer** ordering process. Other organizations are using object-oriented information systems to offer **Web**-based energy-usage **modeling** and **simulation** tools that help their **customers** improve their **cost** management practices. Telecommunications service providers are turning to IT technology to help them as they...

TEXT:

... some businesses, such as wood and paper, leveraging IT may mean little more than introducing **electronic** data interchange to simplify and speed up **customer** orders. In other areas, such as electricity and gas, it involves the development of object-oriented information systems to deliver sophisticated energy-usage **modeling** and **simulation** tools over the **Web** to help business **customers** better manage their **costs**.

In today's marketplace, companies must differentiate themselves in two key ways, says business process...

...easy to do business with, he says, because "if you are adaptive and responsive, then **customer costs** go down even if you don't lower **prices** ." And companies must add value through services, such as inventory management.

No commodities companies rely...

...No separate power lines from the various sources are connected to the homes of those **customers** . Instead, with an **electronic** switch, PG&E Energy Services simply takes over servicing the account, then uses layers of IT to schedule, meter, and manage the electricity. **Customer** demand dictates what percentage of the total electricity "pool" is derived from the "clean" sources. **Customers** are then charged a few dollars more in their monthly utility bill for their decision to buy environmentally friendly electricity.

For large commercial and industrial **customers** , PG&E Energy Services has a three-phase IT development program to deliver improved **Web**-based services for managing electricity usage. The first phase, which was made available in July, provides historical power usage data to **customers** . The second phase, available later this year, will add weather data and facility-management capabilities. The third phase, which may bear a subscription **fee** and is slated to be delivered early next year, introduces **modeling** and **simulation** tools using real-time data on the **Web** site for **customers** to use in forecasting energy consumption. The site will offer advice on how to cut consumption, letting **customers** manage their bills-PG&E might advise them to run energy-consuming industrial processes during...

10/3,K/34 (Item 34 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
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07199441 SUPPLIER NUMBER: 15199930 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Cost -of-ownership issues in a flexible manufacturing environment.

(Special Report - Fab of the Future, part 2) (Cover Story)

Doering, Robert R.

Solid State Technology, v37, n2, p39(4)

Feb, 1994

DOCUMENT TYPE: Cover Story ISSN: 0038-111X LANGUAGE: ENGLISH

TEXT:

Cost -of-ownership (COO) analysis has started to gain acceptance in the semiconductor industry as a tool for evaluating potential **cost** and benefit tradeoffs of purchased equipment. However, use of the technique has so far been optimized for traditional high-volume wafer fabs. Furthermore, standard COO analysis **models** are usually applied to a single process step (i.e., to alternatives for one piece of equipment). This article examines the impact of flexible **manufacturing** on analyses that use current COO **models** . Also, the author explores possible extensions of COO analysis to better address **costs** and benefits in a flexible **manufacturing** environment, which allows fast cycle times and extensive equipment reuse and includes powerful **computer** -integrated **manufacturing** capabilities.

Most current **cost** -of-ownership (COO) analysis in the semiconductor industry is based on the SEMATECH COO **model** , which has been steadily evolving since its introduction in the late 1980s as a component of a total productivity **model** . More recently, SEMI chartered a subcommittee with the task of exploring the growing role of...

...analysis in the semiconductor industry. A recent article reviewed industry progress and acceptance of COO **modeling** [1]

In this article, we explore the potential impact of flexible **manufacturing** (such as that developed by Texas Instruments [TI] in the Microelectronics **Manufacturing** Science and Technology [MMST] program) on analyses using current COO **models**. Also, we look at possible extensions to future **models** for semiconductor-industry COO, which may better address flexibility-related **costs** and benefits.

Limitations of the COO **model**

Basically, the current COO **model** attempts to resolve the various tradeoffs in semiconductor equipment evaluation in terms of an overall **cost** -per-good-wafer for a particular **manufacturing** step. There is an implicit assumption in the current **model** that each wafer is to be processed with the same recipe every time for a specific processing step. Thus, no **costs** are included to reflect new setups required in flexible **manufacturing** scenarios. Also, there is no accounting for certain less tangible aspects of equipment capability, such as **computer**-integrated **manufacturing** (CIM) connectivity (e.g., SECS-II compatibility).

Of course, the significance of items such as...

...open-loop statistical process control. In general, in situ sensors add directly to the capital **cost** of the tool. But that will not always be the case. Ultimately, real-time process control will provide a lower **cost** alternative to "brute-force" approaches -- especially with the increasingly tight process specifications required for device scaling and larger wafers.

Real-time process control already provides **production** economies in more-mature industries, such as paper **manufacturing**. Until semiconductor **manufacturing** (or, at least, some of its tools) reaches that level of maturity, the **costs** of new in situ sensors will need to be evaluated mainly against **costs** associated with the replaced off-line metrology. Such analysis could be performed within a COO **model** extended to include the process-control **costs** associated with each process step. Accounting for opportunity **costs**

Opportunity- **cost** analysis is very important in a flexible **manufacturing** business scenario, but will probably be fairly difficult to incorporate within a tool-level COO...

10/3, K/37 (Item 37 from file: 148)

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05506163 SUPPLIER NUMBER: 11427456 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Hecla Mining Company centennial 1891 - 1991: Au-Ag core central to fete -
new mines, markets, and prospects build for 200th. (includes related
article)

Phelps, Richard W.

E-MJ - Engineering & Mining Journal, v192, n9, p19(7)

Sept, 1991

ISSN: 0095-8948 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

...base-metals, and an "old fashioned" interest in employees, with the ability to enter other **non-commodity** mineral markets that are **customer**-driven. While annual Ag **production** is important, at 5 million oz, the 150,000 oz Au and 750,000 st...

...1/2-9 weeks development-to-exhaustion of a typical stope. On average, ore is **produced** over about 6 weeks. The reduced number of, and relative areal concentration of stopes--compared to former methods--increases the criticality of **production** planning.

While the LFUL method is much more productive, the concentration of **production** has, Brown said, "reduced annual silver capacity by some 50%--from a former level of..."

...reaped a double benefit from the only concrete-lined shaft in the district. It improved **production** during the **price** run-up of the early 1980s as well as reduced shaft maintenance (**cost** /outages) and greatly increased hoisting capacity. Concurrently we improved the ventilation and cooling so that...

Set	Items	Description
S1	5871041	(INTERNET OR ONLINE OR ON()LINE OR ELECTRONIC? OR NETWORK? OR COMPUTER? OR WEB OR WWW) NOT PY>2000
S2	2775035	(SELLER? ? OR VENDOR? ? OR RETAILER? ? OR WHOLESALER? ? OR MERCHANT? ? OR TRADER? ? OR BROKER? ? OR SUPPLIER? ?) NOT PY>- 2000
S3	4319951	(BUYER? ? OR PURCHASER? ? OR CONSUMER? ? OR CUSTOMER? ?) N- OT PY>2000
S4	8945739	(COST? ? OR PRIC??? OR RATE? ? OR FEE OR FEES OR EXPENSE? - ?) NOT PY>2000
S5	5925399	(PRODUCE? OR PRODUCTION? OR MANUFACTUR?) NOT PY>2000
S6	1488397	(MODEL? OR SIMULAT?) NOT PY>2000
S7	63	S1 AND S2 AND S3 AND S4 AND S5 AND S6 AND (NONCOMMODIT? OR NON()COMMODIT?)
S8	63	S7 NOT PY>2000
S9	46	S8 NOT PD>20000424
S10	44	RD (unique items)
? show files		
File 148:Gale Group Trade & Industry DB 1976-2003/Jun 17 (c)2003 The Gale Group		
File 47:Gale Group Magazine DB(TM) 1959-2003/Jun 13 (c) 2003 The Gale group		
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File 640:San Francisco Chronicle 1988-2003/Jun 18 (c) 2003 Chronicle Publ. Co..		
File 641:Rocky Mountain News Jun 1989-2003/Jun 17 (c) 2003 Scripps Howard News		
File 702:Miami Herald 1983-2003/Jun 17 (c) 2003 The Miami Herald Publishing Co.		
File 703:USA Today 1989-2003/Jun 17 (c) 2003 USA Today		
File 704:(Portland)The Oregonian 1989-2003/Jun 16 (c) 2003 The Oregonian		
File 713:Atlanta J/Const. 1989-2003/Jun 15 (c) 2003 Atlanta Newspapers		
File 714:(Baltimore) The Sun 1990-2003/Jun 17 (c) 2003 Baltimore Sun		
File 715:Christian Sci.Mon. 1989-2003/Jun 18 (c) 2003 Christian Science Monitor		
File 725:(Cleveland)Plain Dealer Aug 1991-2003/Jun 17 (c) 2003 The Plain Dealer		

File 735:St. Petersburg Times 1989- 2000/Nov 01
(c) 2000 St. Petersburg Times

File 476:Financial Times Fulltext 1982-2003/Jun 18
(c) 2003 Financial Times Ltd

File 477:Irish Times 1999-2003/Jun 12
(c) 2003 Irish Times

File 710:Times/Sun.Times(London) Jun 1988-2003/Jun 17
(c) 2003 Times Newspapers

File 711:Independent(London) Sep 1988-2003/Jun 17
(c) 2003 Newspaper Publ. PLC

File 756:Daily/Sunday Telegraph 2000-2003/Jun 18
(c) 2003 Telegraph Group

File 757:Mirror Publications/Independent Newspapers 2000-2003/Jun 18
(c) 2003

NEW FROM RESOURCE DATA INTERNATIONAL, INC.

Coal-Fired Generation in Competitive Power Markets

SPECIAL

Free Copy
with Order!!
For a limited
time only!

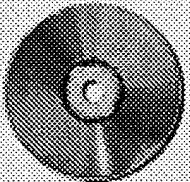
How will evolving utility deregulation and new environmental regulations impact generation owners, coal suppliers, transportation providers and the financial community?

This new study from Resource Data International, Inc. takes an in-depth look at all of the major changes and regulations affecting coal-fired generation in the competitive marketplace and analyzes their impacts at the plant level.

It examines the various environmental, regulatory, and structural changes impacting the industry and quantifies the future impacts on generation owners, coal suppliers, coal transporters, and financial institutions.

The data and analysis in the study are a must for: current generation owners, new market entrants, power marketers, financial concerns, and coal and transportation suppliers.

SUPPLEMENTAL DATA ON CD-ROM
Each appendix from Coal-Fired Generation in Competitive Power Markets is on CD and included with the study free of charge. Using search tools in Excel and/or Word, you can quickly find information you need.



What's Included in the Study:

- Comparative analysis and competitive assessment of **every major coal-fired power plant** in the country now, and in 2003
- Detailed analysis of the major issues that will affect the value of **coal-fired power plants** in the future including: plant efficiency, future coal and transportation prices, and the margin between production costs and electricity prices
- Quantification of the amount and present value of **above-market coal contracts**
- Detailed forecast of coal volumes, quality, and prices for each plant in 2003 incorporating announced or projected environmental compliance plans
- Identification of new environmental regulation limits for SO₂ and NO_x and historic emissions for each coal-fired unit, along with **projected compliance technologies and estimated costs** in 2003
- Analysis of recent coal-fired **asset acquisitions** and the factors driving the prices paid for these assets
- Coal-fired plant sales and acquisitions are chronicled with insight on the purchase price differentials between regions

Plants Benchmarked Across Key Criteria

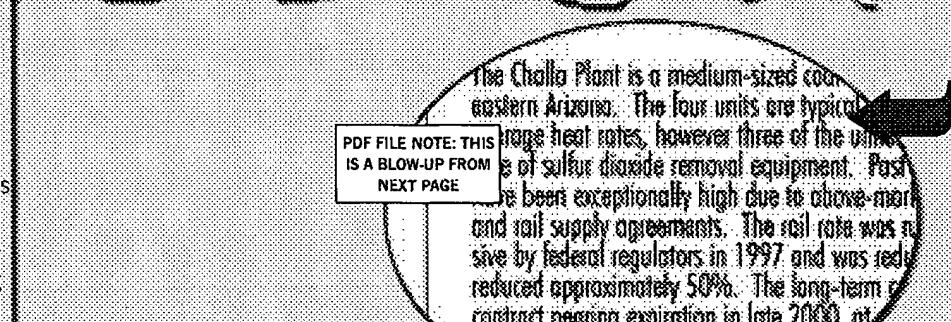
Above Market Coal and Rail Analysis

by Plant and Coal Source Region

PLANT/OPERATOR REGION	COAL SOURCE REGION	NETS TONS	AVG FOB MINE PRICE (\$/TON)	AVG MKT PRICE (\$/TON)	% DIFF FROM MKT	AVG RAIL COST (\$/TON)	AVG MKT RAIL COST (\$/TON)	% DIFF FROM MKT	TOT DELIV COAL COST (\$/MMBtu)	IDEALIZED DELIVERED COST (\$/MMBtu)
SCHWARTZSCO	ECAS	88	13.78	12.71	-8.0%	6.76	7.44	-9.1%	116.2	114.3
SCHWARTZSCO	ECAS	3180	21.75	21.36	-1.9%	9.63	12.63	-22.6%	130.3	133.5

Fuel Cost Benchmarking

Every power plant has its estimated FOB mine prices and transportation rates benchmarked against current open market pricing. Fuel cost components for each plant are compared to industry averages to determine strengths and weaknesses in each respective area. Above-market contracts are identified, as well as those plants purchasing below average market levels.



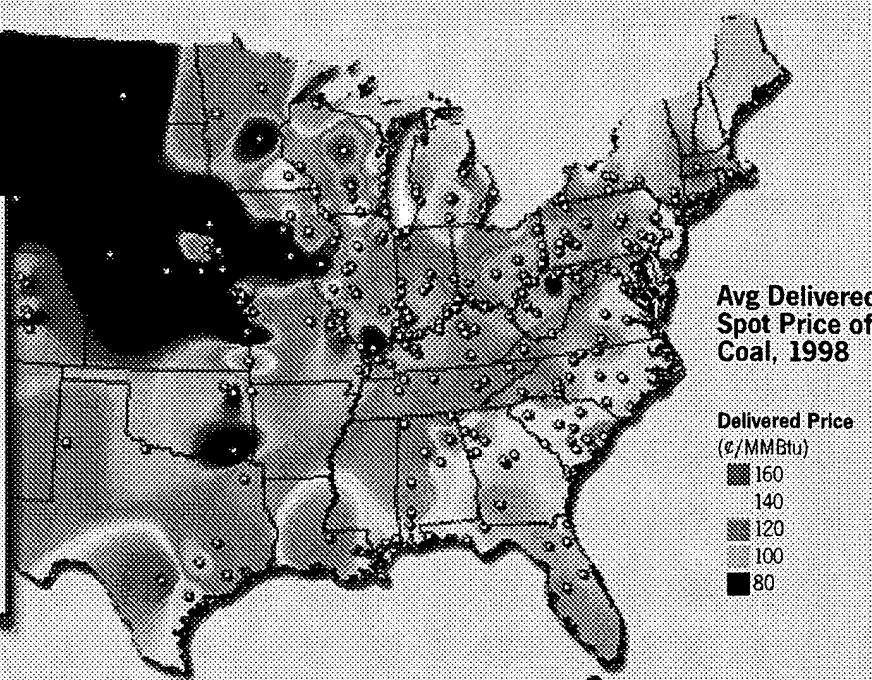
Evaluate & Benchmark Coal-Fired Plants

This study evaluates and benchmarks every coal-fired plant on a national and regional basis for critical cost components such as delivered fuel, power production, labor and conversion efficiency (heat rate). These costs are also forecast for the year 2003 to analyze the impacts of the upcoming changes on coal, electricity, and generating markets. The study investigates the changes in profitability of each plant now due to the pressures of deregulation and changing environmental regulation.

See Emerging Trends on Detailed Energy Industry Maps

Included are maps showing:

- Average Delivered Spot Market Coal Costs
- Average Coal-fired Power Production Costs
- Average Delivered Price of Natural Gas
- Average Wholesale Price of Electricity
- Margin Analysis - Wholesale Power Prices less Coal-fired Production Costs
- Margin Analysis - Combined Cycle Gas-fired Production Costs less Coal-fired Production Costs
- Age Distribution of Coal-fired plants
- And more...



Power Plant Competitiveness Rankings

Cholla

Arizona Public Service Co.

HOLDING COMPANY-OPERATING COMPANY: Pinnacle West Capital Corp./AZ PUBLIC SERV CO.

NERC: WSCC

SUB-REGIONS: AZ/NM/A

ST: AZ

COAL CAPACITY: 995

NON-COAL CAPACITY: 0

RDI Rating:



Cholla Plant is a medium-sized coal-fired plant in eastern Arizona. The four units are typical in nature with average heat rates, however those of the state have some type of state-specific cost and fuel supply agreement. The fuel costs have been exceptionally high due to above-market cost and fuel supply agreement. The rate was rated as being below the national average in 1997 and was reduced slightly in 1998. The long-term cost and output is being reviewed in late 2000, at which point the cost should drop to \$11/MWhr ranking it in the second quartile. Production may start to drop in 2001, which would place it in the second quartile. The WESI power plant, and other low cost coal-fired plants in the southwest region.

Coal Purchase Summary

Supply Region	Tons (000)				
	1994	1995	1996	1997	1998
Four Corners	3,555	2,486	2,577	3,003	3,415
NPRA	—	—	—	—	94
Rutan	—	—	—	—	91
SPRB	—	—	—	238	251
Total	3,555	2,486	2,577	3,004	3,851

Supply Region	Deliv. c/MMBTU					Avg Price for Az.
	1994	1995	1996	1997	1998	
Four Corners	155	143	142	146	139	133
NPRA	—	—	—	—	132	132
Rutan	—	—	—	—	125	125
SPRB	—	—	—	108	119	119
Total	3,555	2,486	2,577	3,004	3,851	

Receiving Capabilities

Barge-No: Rail-BNSF Equipment: Bottom Unload Time: 4 hrs

Plant Performance

Generation (MMh)	1995			1996			1997			
	5,085,670	5,019,969	6,278,672	58.3%	57.4%	72.03%	Heat Rate	10,875	10,917	10,925
1998 Regional Power Price \$/MWh										\$27.70
Pw Prod Cost (\$/MMh)	\$22.90	\$24.04	\$20.52	Fuel Cost Quartile Rank	4	4	4			
Fuel S	89,569,138	88,692,952	100,273,028	Fuel (\$/MMh)	\$17.82	\$17.88	\$16.39			
Fuel Quartile Rank	4	4	4	Fuel Quartile Rank	4	4	4			
Non-Fuel OEM S	26,064,209	31,017,875	26,651,145	Non-Fuel OEM (\$/MMh)	\$5.08	\$6.16	\$4.23			
Non-Fuel OEM Quartile Rank	3	4	2	Non-Fuel OEM (\$/MMh)	\$26.20	\$31.17	\$26.79			
Employees	277	179	177	Employees	18,360	21,045	36,504			
Generation (MMh)/Emp	18,360	21,045	36,504	Non-Fuel Quartile Rank	3	3	2			
Capacity/Emp	3.59	5.56	5.78	Capacity/Emp	3.59	5.56	5.78			

Summing It All Up: Impacts in 2003

The impacts of utility deregulation and new environmental regulations are quantified through a dispatch simulation for the year 2003, the first year of 22 state SIP call NOx regulations. The impacts of coal switching, new costly compliance equipment, increasingly open transmission access and the elimination of above-market fuel costs are incorporated into an economic dispatch model for the year 2003. The Inter-Regional Electric Market Model (IREMM) will determine generation volumes by unit, wholesale power prices and power production cost margins by plant. Coal volume and capacity factor analyses identify which plants could benefit from these changes as well as those that may suffer.

Coal Fired Generating Units Overview

Generating Units	1	2	3	4
DEM Capacity	110	245	260	380
On-Line Date	6/1/62	6/1/78	5/1/80	6/1/81
Boiler Type	PC	PC	PC	PC
Secondary Fuel	Gas	No. 2 Oil	No. 2 Oil	No. 2 Oil
Fuel Load Factor	10,378	10,362	10,399	10,395

Environmental	W	M	U	W
SO ₂ Controls	50	50	50	50
SO ₂ Emissions Rate (lbs/mmmbtu)	50	50	50	50
SO ₂ Emissions Rate (tons)	50	50	50	50
Phase II SO ₂ Allowances	50	50	50	50
NO _x Controls	50	50	50	50
NO _x Rate (lbs/mmmbtu)	50	50	50	50
Most Stringent Proposed Rule Limit	50	50	50	50

Coal-Fired Power Plant Profiles

Critical power plant characteristics and three years of operating statistics are presented in an easy-to-reference, one page layout for each plant.

Many performance indicators are benchmarked against national or regional measures to provide the reader an assessment of the competitive position of each plant on each measure.

Basic plant physical data such as the number of units, unit capacities, and heat rates are listed.

Summary coal purchase data for the last 5 years and coal receiving capabilities are also included.

Critical environmental compliance information such as SO₂ scrubber efficiencies, SO₂ and NO_x emission rates, and future emission limits are listed. Each plant is rated for its overall performance, as well as its comparative performance in the areas of fuel cost, conversion efficiency, conversion cost, and operating margin.

Finally, a short narrative details unique insights, strengths and weaknesses, and operating peculiarities at each plant.

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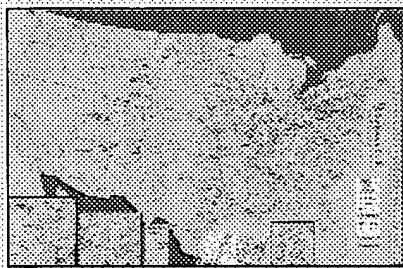
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Estimated Future Environmental Compliance Cost for 2003

PLANT/OPERATOR/UNIT	NRC REGION	CAPACITY (MMW)	CURRENT REMOVAL EQUIPMENT	RDI COMPLIANCE SCENARIO					
				SO ₂ CONTROL TECHNOLOGY	CAPITAL COSTS (\$/MW)	BLW CHG COST (\$/MMBtu)	OC-2 CONTROL TECHNOLOGY	CHP/OC-2 COSTS (\$/MMBtu)	BLW CHG COST (\$/MMBtu)
GIBSON NUCLEAR 1	SCAR	620	OPA	None	100	100	None	100	100
GIBSON NUCLEAR 2	SCAR	620	OPA	None	100	100	None	100	100
GIBSON NUCLEAR 3	SCAR	620	None	None	100	100	None	100	100
GRISWOLD 1&2	SCAR	620	SO ₂ SCR	None	100	100	None	100	100
GRISWOLD 3	SCAR	332	SO ₂ SCR	None	100	100	None	100	100

New Environmental Regulations

New and looming environmental regulations are reviewed and their impacts on coal-fired generators assessed. Compliance options and relative costs are analyzed, and projected compliance choices are forecast for every unit.

Forecast Coal and Transportation Costs for 2003 by Plant and Coal Source Region

PLANT/OPERATOR	NRC REGION	COAL SOURCE REGION	Avg. MTO/LB	Avg. Lbs. COAL/MMBTU	2003 TONNE (\$/MMBtu)	Avg. FOB AVERAGE PRICE (\$/TON)	Avg. Trans. Cost (\$/TON/MMBtu)
CHICAGO PLANT	SCAR	3.8	11,352	6.23	1,376	31.23	0.7
					32.9	33.35	0.94
					2,347	5.14	31.33

Forecast Coal and Transportation Costs

Open market FOB mine prices, transportation costs, and volumes for each plant are forecast to build delivered coal prices for the year 2003. Above-market contracts are eliminated to simulate a competitive market where fuel prices and other factors dictate the dispatch of plants. Economic and environmental factors driving coal source switches are incorporated in fuel source allocations. Utility demand for coal by source region is aggregated and analyzed.

Comparative Analysis: SPP Region

